Mathematics Grade 4

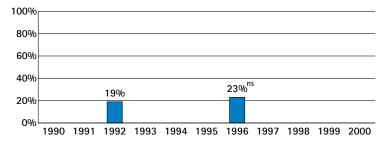
1. Improvement Over Time

Have Utah's 4th graders improved in mathematics achievement?

Not yet. Between 1992 and 1996, there was no significant change in the percentage of public school 4th graders who met the Goals Panel's performance standard in mathematics.

The Goals Panel has set its performance standard at the two highest levels of achievement — Proficient or Advanced — on the National Assessment of Educational Progress, or NAEP.

Percentage of public school 4th graders at or above Proficient on the NAEP mathematics assessment



ns Interpret with caution. Change was not statistically significant. Mathematics performance will be tested again in 2000.

2. State Comparisons⁺

How did Utah compare with other states in 4th grade mathematics achievement in public schools in 1996?

1 state had a significantly higher' percentage of students who were at or above Proficient on NAEP:

Connecticut 31%

23 states had similar percentages of students who were at or above Proficient on NAEP:

Minnesota Maine, Wisconsin	29% 27%	Colorado, Iowa, Maryland, Montana <i>U.S.,</i> * Alaska, North Carolina, Oregon,	22% 21%
New Jersey, Texas	25%	Washington	
Indiana, Massachusetts, Nebraska,	24%	Missouri, New York, Pennsylvania	20%
North Dakota		Virginia ²	19%
Utah, Michigan, Vermont	23%	_	

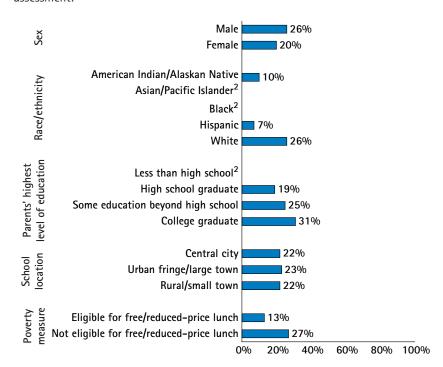
20 states had significantly lower' percentages of students who were at or above Proficient on NAEP:

West Virginia,2 Wyoming2	19%	South Carolina	12%
Rhode Island, Tennessee	17%	Alabama, California	11%
Delaware, Hawaii, Kentucky	16%	Louisiana, Mississippi	8%
Arizona, Florida	15%	District of Columbia	5%
Nevada	14%	Guam	3%
Arkansas, Georgia, New Mexico	13%		

⁺ The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.

3. Subgroup Performance

What percentages of public school 4th graders in different subgroups in Utah were at or above Proficient on the 1996 NAEP mathematics assessment?



¹ Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

¹ See explanation on pp. 3-4.

² State may appear to be out of place; however, statistically, its placement is correct. See pp. 3-4.

^{*} Figure shown for the U.S. includes both public and nonpublic school data.

² Characteristics of the sample do not permit a reliable estimate.

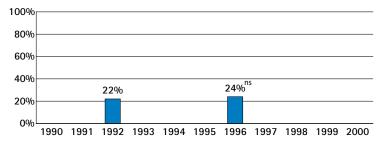
1. Improvement Over Time

Have Utah's 8th graders improved in mathematics achievement?

Not yet. Between 1992 and 1996, there was no significant change in the percentage of public school 8th graders who met the Goals Panel's performance standard in mathematics.

The Goals Panel has set its performance standard at the two highest levels of achievement — Proficient or Advanced — on the National Assessment of Educational Progress, or NAEP.

Percentage of public school 8th graders at or above Proficient on the NAEP mathematics assessment



^{ns} Interpret with caution. Change was not statistically significant. Mathematics performance will be tested again in 2000.

2. State Comparisons⁺

How did Utah compare with other states in 8th grade mathematics achievement in public schools in 1996?

9 states had significantly higher' percentages of students who were at or above Proficient on NAEP:

Minnesota	34%	Connecticut, Iowa, Maine, Nebraska	31%
North Dakota	33%	Alaska	30%
Montana, Wisconsin	32%		

14 states had similar' percentages of students who were at or above Proficient on NAEP:

Massachusetts, Michigan	28%	U.S.,* Utah, Indiana, Maryland	24%
Vermont	27%	Missouri, New York, Wyoming	22%
Oregon, Washington	26%	Texas, Virginia	21%
Colorado	25%	North Carolina ²	20%

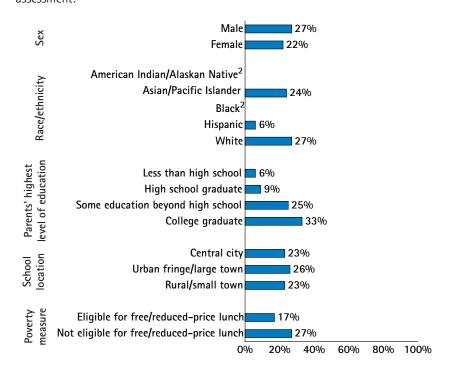
18 states had significantly lower percentages of students who were at or above Proficient on NAEP:

Rhode Island ²	20%	Arkansas	13%
Delaware	19%	Alabama	12%
Arizona	18%	Louisiana, Mississippi	7%
California, Florida	17%	Guam	6%
Georgia, Hawaii, Kentucky	16%	District of Columbia	5%
Tennessee	15%		
New Mexico, South Carolina,	14%		
West Virginia			

⁺ The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.

3. Subgroup Performance

What percentages of public school 8th graders in different subgroups in Utah were at or above Proficient on the 1996 NAEP mathematics assessment?



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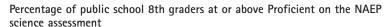
Science Grade 8

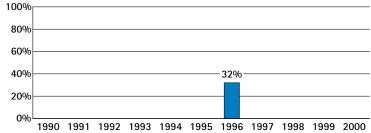
1. Improvement Over Time

Have Utah's 8th graders improved in science achievement?

In 1996, 32% of Utah's public school 8th graders met the Goals Panel's performance standard in science. The Goals Panel will report whether science performance has improved over time when science is assessed again in 2000.

The Goals Panel has set its performance standard at the two highest levels of achievement - Proficient or Advanced - on the National Assessment of Educational Progress, or NAEP.





Science performance will be tested again in 2000.

2. State Comparisons⁺

How did Utah compare with other states in 8th grade science achievement in public schools in 1996?

4 states had significantly higher percentages of students who were at or above Proficient on NAEP:

Maine, Montana, North Dakota 41% Wisconsin 39%

14 states had similar¹ percentages of students who were at or above Proficient on NAEP:			
Massachusetts, Minnesota	37%	Alaska	31%
Connecticut, Iowa	36%	Indiana	30%
Nebraska	35%	U.S.*	29%

32%

Missouri

Virginia²

at or above Proficient on NAEP:				
rk,² Washington²	27%	New Mexico	19%	
sland	26%	Alabama	18%	
d	25%	South Carolina	17%	
aralina	2.40%	Hawaii	1 = 0/6	

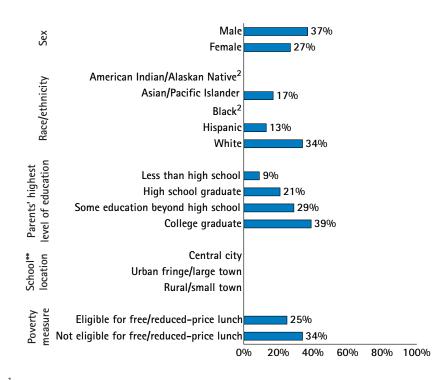
Rhode Island	26%	Alabama	18%
Maryland	25%	South Carolina	17%
North Carolina	24%	Hawaii	15%
Arizona, Kentucky, Texas	23%	Louisiana	13%
Arkansas, Tennessee	22%	Mississippi	12%
Delaware, Florida, Georgia,	21%	Guam	7%
West Virginia		District of Columbia	5%
California	20%		

⁺ The term "state" is used to refer to the 50 states, the District of Columbia, and the territories.

* Figure shown for the U.S. includes both public and nonpublic school data.

3. Subgroup Performance

What percentages of public school 8th graders in different subgroups' in Utah were at or above Proficient on the 1996 NAEP science assessment?



¹ Interpret differences between subgroups with caution. See pp. 3-4 and Appendix D.

New Yor

Vermont, Wyoming

Utah, Colorado, Michigan, Oregon

28%

27%

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² Characteristics of the sample do not permit a reliable estimate.

^{**} No school location data for science in 1996.

International Comparisons



Mathematics Grade 8

Forty-one nations[†] participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade mathematics in 1995. If public school 8th graders in Utah participated in the TIMSS mathematics assessment, how would their average performance compare to that of students who took TIMSS in these nations?

12 nations would be expected to perform significantly higher:

(Austria) Japan Belgium - Flemish² Korea Czech Republic Singapore France Slovak Republic Hong Kong (Slovenia) (Switzerland) Hungary

18 nations would be expected to perform similarly:1

(Australia) (Netherlands) (Belgium - French)² New Zealand (Bulgaria) Norway

Canada Russian Federation

(Denmark) (Scotland) (England) Sweden (Germany) (Thailand) Ireland **United States**

(Israel) Utah

(Latvia - LSS)3

11 nations would be expected to perform significantly lower:1

(Colombia) (Lithuania) Portugal Cyprus (Greece) (Romania) (South Africa) Iceland Iran, Islamic Republic Spain

(Kuwait)

- + The term "nation" is used to refer to nations, states, or jurisdictions. Performance for nations is based on public school data only. Nations not meeting international guidelines are shown in parentheses.
- 1 See explanation on pp. 3-4.
- 2 The Flemish and French educational systems in Belgium participated separately.
- 3 Latvia is designated LSS because only Latvian-speaking schools were tested, which represent less than 65% of the population.

Science Grade 8



Forty-one nations[†] participated in the Third International Mathematics and Science Study (TIMSS) in 8th grade science in 1995. If public school 8th graders in Utah participated in the TIMSS science assessment, how would their average performance compare to that of students who took TIMSS in these nations?

1 nation would be expected to perform significantly higher:

Singapore

17 nations would be expected to perform similarly:1

(Australia) Japan (Austria) Korea Belgium - Flemish² (Netherlands) (Bulgaria) Russian Federation Czech Republic Slovak Republic (England) (Slovenia) Sweden (Germany) Hungary United States Ireland Utah

23 nations would be expected to perform significantly lower:1

(Belgium - French)2 (Latvia - LSS)3 Canada (Lithuania) (Colombia) New Zealand Cyprus Norway (Denmark) Portugal France (Romania) (Greece) (Scotland) (South Africa) Hong Kong Spain Iceland Iran, Islamic Republic (Switzerland) (Israel) (Thailand) (Kuwait)

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